#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

## WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-029142 Address: 333 Burma Road **Date Inspected:** 13-Feb-2013

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name: CWI Present:** Yes No As noted below **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No

N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** 

**Delayed / Cancelled:** Yes

34-0006 **Bridge No: Component: SAS OBG** 

## **Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA observed the following welders working on the OBG at various locations:

ABF welder Mike Jimenez #4716 was observed performing the ongoing SMAW on the Deck Access Hole at 14W PP126.5-W2-DAH. The welder was observed utilizing WPS ABF-D1.5-1040C-CU for SMAW. The welder was observed preheating the welds prior to welding. Other welding parameters as inspected by the QC Inspector were recorded as 136 amperes and appeared to be in compliance with the WPS noted above. The QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract documents.

This QA Inspector made random observations of the SMAW process of elevator platform support of the Tower at the 58 meter elevation. ABF/JV welder Xiao Hua Luo #1291 performed the welding in compliance and conforming to ABF-WPS-D1.5-F1200A for fillet welding utilizing the SMAW process. Upon completion, the QC Inspector Fred Michels tested the welds by means of Magnetic Particle Inspection to verify soundness of the base metal and weld metal. The work and testing was found to be acceptable and appeared to be in general conformance to the contract documents.

ABF welder Wai Kit Lai #2953 was observed performing ongoing weld repairs on 14E PP126.5-E2-DAH. The

N/A

N/A

No

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welder was observed utilizing WPS ABF-WPS-D15-1004-Repair-Revision 0 for SMAW. The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by the QC Inspector appeared to be in compliance with the WPS noted above. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that work was completed on this date and appeared to be in general conformance with the contract documents.

This QA Inspector randomly observed ABF welder Rick Clayborn utilize a track mounted motorized cutting torch to trim the edge of the West Blockout on the SAS side of the bridge in accordance with CCO281. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work at this location was in progress and appeared to be in general conformance with CCO281.

This QA Inspector observed F.W. Spencer welder Damian LLanos # 6645 performing Shielded Metal Arc Welding (SMAW) in all positions on schedule 80 4" compressed air pipe and 2.5" domestic water pipe at 40/4/115/NE, 40/2.5/115/NE and 40.5/2.5/115/NE. This QA Inspector verified the fit up of the joints and found it to be satisfactory and randomly observed QC Inspector Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed utilizing 6010 electrodes in the root pass with the balance using 7018 electrodes. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work appears to be in general conformance with the contract documents.

This QA observed QC Inspector Fred Michels and Salvador Merino performing welding parameter checks such as voltage, amps, electrodes and preheats throughout the day. This QA also observed QC Inspector's John Hays performing various Non-Destructive Testing (NDT) on completed weld repairs as they became available for testing. Non-Destructive Testing methods utilized by the QC Inspectors were Visual Testing (VT), Magnetic Particle Testing (MPT) and Ultrasonic Testing Shear Wave (UTSW). QC Inspectors were observed performing inspection per applicable code and or contract criteria. Unless otherwise noted, all work observed on this date appeared to generally comply with the contract documents.

### **Summary of Conversations:**

Conversations were relevant to work performed.





#### **Comments**

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Reyes,Danny	QA Reviewer